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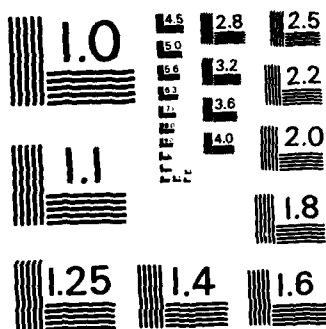
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## THESIS

A CRITICAL ANALYSIS OF U.S. ARMY ACCESSIONS THROUGH  
SOCIOECONOMIC CONSIDERATION BETWEEN 1970 AND 1984

by

Ci Heon Park

and

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June 1985

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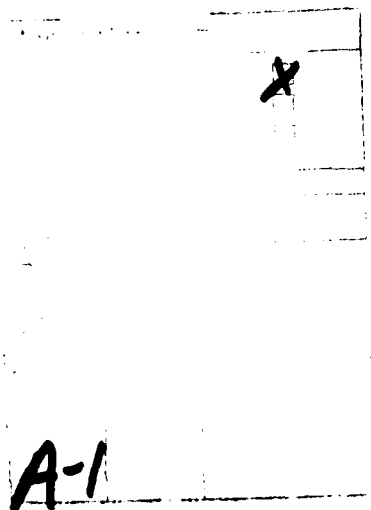
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**A Critical Analysis of U.S. Army Accessions through  
Socioeconomic Consideration Between 1970 and 1984.**

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## ABSTRACT

Socioeconomic representativeness is very important because it is one of the major equity issues in manpower procurement, and it influences military effectiveness. The U.S. Army, in the light of socioeconomic consideration, has had more severe problems than other services since the start of the All-Volunteer Force (AVF).

This thesis examined the socioeconomic characteristics of Army personnel who enlisted during the period between July 1, 1970 and September 30, 1984. The purpose was to determine if any trends in the socioeconomic characteristics were apparent during that period. This period includes the transition from the draft to the AVF. The socioeconomic characteristics of 1982 Army enlistees were compared with the U.S. population of 1982. This was done to determine the socioeconomic representativeness of the Army's enlistees in that particular year. In addition, the socioeconomic overview of Republic of Korea in the military is presented in Appendix A. In conclusion, this study indicates that the Army's Active duty force has improved overall since 1979.

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## I. INTRODUCTION

The United States has vital interests in the Republic of Korea (ROK), because "the maintenance of the peace and security on the Korean peninsula is 'essential' to peace and security of east Asia, and is 'vital' to the security of the United States."<sup>1</sup> As that countermeasure, to keep the military balance in the Korean peninsula, the United States deploys the 2nd Infantry Divisions in the Army as well as forces from other services.<sup>2</sup> Also, Joint Operation Exercises such as Team Spirit, the largest of the Joint Exercises in the Democratic parts, is held annually in Korea. Whenever Joint Operation Exercises occurred, we (author) witnessed that the U.S. Army had many blacks and some of them were very poor in writing and calculating.

In December 1980, data from the 2nd Infantry Divisions show that black enlistment rates is roughly 41.1%: Infantry 41.3%; Armor 38%; Artillery 47.6%; Engineers 31.9%; Signal 57.6%. At that time, the black proportion in the army was 30% and the blacks in the total population was 18%.

[Ref. 1]

These facts are demonstrated in some of the following questions. Why does the U.S. Army consist of a large percentage of blacks? Why is the 'burden of defense' in the U.S.,--of the people, by the people and for the people--, unfair? Is the U.S. Army a representative force? Does the U.S. Army have unit cohesion between whites and blacks? Is the "quality" of U.S. Army enlisted personnel adequate?

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<sup>1</sup>This is derived from the joint statement between Korea and U.S. (Nov. 14, 1983), and between Korea and Japan (Sep. 8, 1984).

<sup>2</sup>There are about 40,000 members among U.S. soldiers in Korea (1985).

These concerns of the U.S. Army may be viewed as a sign of weakness. These facts pertain to our concerns because there are many differences between The Republic of Korea (ROK) and the United States.<sup>3</sup>

In June 1973, President Nixon changed from the peacetime draft to the All-Volunteer Force (AVF). But the debate concerning America's AVF (especially the Army) is more controversial than before in the issue of representation.

Some critics of the AVF charge that the quality of accessions is not representative of the population at large and that the distribution of the burden of service in the AVF is falling disproportionately on the poor and on minorities, especially in the enlisted combat forces. [Ref. 2]. Also, some national leaders--both blacks and white--hold that a disproportionately black force puts an unfair burden on black Americans, particularly in the initial stage of military hostilities. [Ref. 3]. As an example, if the 2nd Infantry Division became involved in hostilities on the Korean peninsula, black soldiers would be likely to suffer 41.1% of the early casualties, based on the racial mix in the Division. Other observers question the reliability of an unrepresentative force, particularly when such a force might be assigned to missions (domestic or foreign) in which their representativeness would create an issue. And some have even suggested that an increasingly black force has adversely influenced the caliber of white recruits. These critics indicate that a representative force is very critical.

This study examines the socioeconomic characteristics of Army personnel who enlisted during the period beginning July 1, 1970 and ending September 30, 1984. The purpose of this examination is to determine if there were any apparent

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<sup>3</sup>See appendix A, 'Military Environment and Socioeconomic Overview of the ROK.'

These situations were caused by the coincidence of two sets of factors: "First, compensation for military personnel was allowed to become less competitive. Caps on military pay were imposed in several years, funds for enlistment and reenlistment bonuses were reduced, the GI Bill was terminated for new entrants to the force, and recruiting manpower and funds were cut. Second, unemployment rates in the civilian sector declined, creating attractive alternative job opportunities for both potential recruits and experienced members of the force." [Ref. 51]

## 2. Recruit Quality

Educational level and aptitude test scores are regarded two of the armed forces' most important standards for enlistment.

### a. Educational level

Enlisted volunteers entering the armed forces, compared to recruits during the draft era, have been more likely to have a high school diploma than to have some college credits: "In the 1960s, about 25 percent of Army nonprior-service enlisted accessions had some college graduates. As a result of the 1970 changes in draft policy, the percentage of enlistees with college training started to drop. Today, less than 5 percent have some college. Less than 1 percent have degrees. To put these numbers in perspective: In the early 1960s, the army had at any given time 20 to 30 thousand college graduates in its enlisted ranks, and over 100 thousand enlistees with some college. That pool of older, better-educated youth was a great asset and stands in stark contrast to the low numbers of enlistees today who have a college background. Indeed, today the interest focuses on how many enlistees are high-school graduates, not on how many are college graduates. Ironically,

However, the women recruits of the Army constituted about 12-14 percent of total Army recruits since 1978. Most of them were assigned to nontraditional jobs. Thus, women can increasingly exercise their right and obligation to defend their nation.

## B. PROGRESS OF AVF

Since the end of draft system in 1973, a lot of controversial issues on AVF has occurred as Martin Binkin observed: "With the decision to abolish military conscription in 1973, the United States took on a monumental task: raising an armed force of 3 million by strictly voluntary means. A key concern was whether the services could enlist enough young men and women without incurring additional costs and without compromising the quality and therefore the effectiveness of the armed forces." [Ref. 49].

But, in view of its experience, the AVF does not provide a clear-cut answer, as the issues continue to be widely debated. It is clear that there have been some significant problems.

The purpose here is to pinpoint the critical problems on the progress of the U.S.A's volunteer system in the first decade following the end of conscription

### 1. Manning the Active Force

In 1973, when the conscription system ended, the total number of active-duty personnel in the American Army was just over 810 thousand. Since then, the size of the active Army decreased continuously before reaching the lowest level in 1979 with 759 thousand. [Ref. 50]

At the same time, retention rates of experienced, mid-career enlisted leaders and technicians, who are the heart of an effective Army force, declined year by year.



In 1968 General Lewis Hershey, Director of the Selective Service System, asserted that "the System is representative of the American people, as clear an example as exists today of government of the people, by the people, and for the people....The System as constituted invades all economic levels, all educational institutions, all ethnic groups." [Ref. 45]

However, inspite of his responding to critics, "an array of deferments and disqualifications for getting married, having a child, enrolling in college, teaching in public school, joining the Peace Corps, or failing the induction physical examination--left numerous ways for young men to avoid the draft, and those who did, it appeared, were mainly the white, better--educated children of comfortable families." [Ref. 46].

In 1972, President Nixon proposed elimination of the peacetime draft, and in 1973 the Selective Service law lapsed giving way to a professional, All-Volunteer Force.

During the transition to AVF, the major concern was "quantity and quality, and the issue of representativeness was secondary". [Ref. 47]. The reason is that the armed forces would first have to attract an adequate number of qualified volunteers.

On the other hand, on a small scale the same opportunity is now being offered to women. Beginning with World War II, when women were first given full military status, they have been an important part of the military. In 1967, the restrictions that limited their numbers to two percent of the military were removed. In 1972, when the decision was made to increase the population of women in the military, "some 45,000 women constituted 1.9 % of all activity-duty military personnel; of these women, the vast majority (91%) held traditionally female jobs, such as medical and dental specialists or clerical workers." [Ref. 48].

its scope. "The Director (General Hershey) has pointed out that one reason the nation's shortage of scientists, engineers, and technicians in the late 1950's was not 40,000 to 50,000 greater was the system's student dependent policies of earlier years, particularly during the Korean War."

[Ref. 40]

As Davis and Dolbeare have commented, "at no time has the practice of conscription in this country been anything but selective." [Ref. 41].

There have always been exemptions and deferments for men in some occupations or officials whose services are deemed more valuable at home. This is discriminatory in nature, in that by virtue of economic and social position exemptions from military service are obtainable to some.

In 1963 there were "74,000 inductions" which constituted only 20% of the male non-prior service (NPS) accessions. With the increase of the United States involvement in Vietnam, draft calls rose sharply (to a level of "103,000" in 1965) and much attention was focussed on the draft. [Ref. 42].

During the Vietnam war, many magazines reported official Department of Defense statistics showing that "blacks were more likely to (1) be drafted, (2) serve in high-risk combat units, and consequently, (4) be killed or wounded in battle." Between 1961 and 1966, "when blacks composed approximately 11 percent of the general population aged nineteen to twenty-one, black casualties amounted to almost one-fourth of all losses of Army enlisted personnel in Vietnam." [Ref. 43]

These mounting criticisms led to major change in the Selective Service System policies. The new Military Selective Service Act of 1967 contained certain reforms; mainly in the order of selection, which was reversed to take 19-year-olds and ex-college students first. Deferment criteria were also tightened. [Ref. 44]

period of one year. However, following the attack on Pearl Harbor on December 7, 1941, just as the sentiment of conscription changed so did the length of compulsory service. The period of service now was for the duration of the war plus six months. [Ref. 37]

Before the end of the war, all males between the ages of 18 and 65 were required to register and the Selective Service Board controlled the entire military procurement procedure. Although it rarely met its monthly quota, the draft nevertheless provided some 10 million of the nearly 15 million Americans who served in World War II. It should be noted, however, there were close to 45 million registrants. "In August 1945, the Japanese surrendered. The draft continued for 18 months after the War had ended and was allowed to lapse in March 1947. However this lapse was to be just that, a brief pause in the 25 years of uninterrupted conscription to follow." [Ref. 38]

#### 5. Post-World War II

In 1948, with the U.S military commitments increasing and the size the military declining, President Truman requested congress to reinstitute the draft for the second time in the history of the U.S during a time of peace. In 1951, as the war entered its second year, Congress passed the Universal Military Training and Service Act, which established the Selective Service System as a permanent agency and made all males between the ages of 17 1/2 and 25 eligible for induction. The Universal Military Training and Service Acts of 1951, 1959, 1963 and 1967 continued the practice of conscription. [Ref. 39]

With each new enactment of the law, the Selective Services' role was changed. Additional deferments were granted to students and various occupations. These policies greatly broadened the scope of the draft and greatly altered

War I, the draft was allowed to lapse. Congress considered universal military training (UMT), but popular support had clearly peaked just prior to the War. The National Defense Act of 1920 reaffirmed America's peacetime reliance on voluntary recruitment. UMT went back into the "political closet" for another two decades. [Ref. 34]

#### 4. World war II

On September 16, 1940, Congress passed the Selective Service Training Act, the first peacetime draft in the nation's history. Contrary to the practice of World War I, conscription was used to supplement volunteer enlistments. Also, modeled after the World War I plan, the question of compulsory service again brought about debate on the question of its constitutionality. Those opposing the draft advocated citizen's right, while the supporters defended the position that the draft was the only equitable way to ensure a strong standing military force in which all eligible men would serve. [Ref. 35]

However, this law by the Roosevelt administration reflected 'equality of service' in blacks as the following main points: "(1) The population of blacks in the Army would be equivalent to the proportion of blacks in the general population; (2) Black units would be established in each branch of the Army; (3) Blacks would be allowed to attend officer candidate schools so they could serve as pilots in black aviation units. Yet, the statements policy also noted that, for the maintenance of troop morale and defense preparations, the War Department would continue not to intermingle colored and white enlisted personnel in the same regimental organizations". [Ref. 36]

In 1941, fully a year after World War II began in Europe, Congress approved a Selective Service Draft. Initially, those inducted were required to serve for a

conscientious objectors and certain hardship cases. This discrimination resulted in some grumbling, but overall there were relatively few complaints about fairness. It would be that "many blacks pinned their hopes for a better future on involvement in the war and many black leaders hoped to use the Army as a vehicle for social change." [Ref. 29].

"During the course of World War I, two-thirds (about 3,000,000 men) of the American armed forces were conscripts." [Ref. 30]. Conscription thus became the basis for all enlisted manpower procurement in 1917, since enlistments were halted so as not to disturb the orderly working of the Selective Service System. This element of the law invoked debate over the autocratic nature of conscription. Some felt that volunteerism had not been given a proper chance and that the law was an insult to American manhood. It was argued in Congress, that if proper cash inducements were made, sufficient numbers of young men would enlist for the duration of the war out of practical and patriotic consideration. [Ref. 31]

Nevertheless, the whole operation of drafting an Army for World War I went smoothly. Perhaps much of this success can be attributed to General Oake's report<sup>5</sup> which had served as the basis for the drafting of the Selective Service Act. Of his recommendations incorporated into the 1917 Act, the most important was:

"We must depend in every time of national peril not on a standing army nor yet upon a reserve army, but upon a citizenry trained and accustomed to arms... a system by which training may be made familiar with the use of modern arms." [Ref. 32]

Again, the citizen-soldier concept emerges as theoretical policy in America. However, for the first time, volunteerism was considered not practical in meeting military manpower requirements. [Ref. 33] At the end of World

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<sup>5</sup>This report is called as 'Report on the Draft in Illinois, 1865'

mentioned, but it made the participation of blacks in the Civil War according to President Lincoln. During the Civil War, 390,000 blacks served in the military and 38,000 black soldiers died. [Ref. 24]

After the Civil War, the draft was an intense political issue because of inequities. The draft was never a great source of manpower for the North during the Civil War. Volunteers fought the war. "Only 46,000 actual inductees--2.3 percent of the military manpower raised during the war--were recruited from the 250,000 draft notices issued in the North." [Ref. 25]. The concept of the citizen-soldier was put into practice. For all the shortcomings of the methods of manpower procurement used, the Civil War experience demonstrated that essentially voluntary recruitment methods could be used, even during times when large forces were needed and in the face of adverse circumstances. [Ref. 26].

### 3. World War I

Conscription was dropped after the Civil War, not to be revived again until 1917, the year the United States entered World War I. Widely attacked as unconstitutional, the Selective Service Act of 1917 established a broad system of a local Selective Service Boards. The act established the machinery to conduct the draft. The legislation provided for classification of male registrants "into one of five categories according to their 'value' to the civil sector." Class I contained those men of least value, thereby allowing them to be inducted first. [Ref. 27].

"This, of course, led to an overrepresentation of the poor and black, as illustrated by the fact that blacks constituted 9.6 percent of all registrants but accounted for 13 percent of the inductions." [Ref. 28]. The legislation also provided for exemptions to certain categories of

with the republican form of government. For these reasons, the states would provide the necessary manpower in the form of their militias when it was needed until the next war. [Ref. 20].

## 2. The Civil War

The Civil War was the first total war in which millions of participants, the economies of each enemy, and finally, their respective cultures were fuel for the inferno. [Ref. 21].

With the onset of the Civil War, volunteers flooded both the Armies of the North and South. The Federal government, facing the same reduction in the number of volunteers, enacted the Militia Act in 1862. It required states to furnish men through enlistments or draft if necessary. This system proved to be too unwieldy for the states to control effectively, so it was replaced on March 3, 1863 by the enrollment Act. This was the first draft law of the United States. [Ref. 22]

However, under this law, any prospective conscript was allowed the opportunity to buy temporary exemption from the Army for the sum of \$ 300, or he could be permanently exempt if he hired a substitute to fight in his place. These exemptions brought about inequities in favor of the rich, which were partly responsible for subsequent bloody riots and violence. [Ref. 23]

The obvious injustice was dramatically emphasized when citizens and draft officials clashed in July 1863 in what was later known as the "draft riots of New York." For four days an antidraft mob controlled much of New York City, burning and looting anti-slavery and black property. Loss of life has been estimated as high as 1,200 persons and property damage may have reached two million dollars. Also, this law had a more immediate effect on blacks, as above

it lacked money to pay enlistment and bounties equal to those the states could offer; and it could not enforce equity under state draft laws. [Ref. 17]. The unequal burden persisted, as draft laws frequently allowed a man to hire a substitute or pay a fine to avoid conscription.

At the end of the war, Washington conveyed to congress his "Sentiments on a Peacetime Establishment." In recommending a small peacetime army backed by a well-regulated, federally provided, National Militia, he wrote of a universal military obligation:

It may be laid down as a primary position, and the basis of our system that every citizen who enjoys the protection of a free Government, owes not only a pre-portion of his property, but even of his personal services to the defense of it, and consequently that the citizens of America (with a few legal and official exceptions) from 18 to 50 years of age should be borne on the Militia Rolls, provided with uniform Arms, and (be) so far accustomed to the use of them, that the total strength of the country might be called forth at a short notice on any very interesting emergency. [Ref. 18].

President Washington also suggested a plan whereby each 19-year-old male would train several weeks for three summers. He felt this system would be beneficial to the country because trained men would be ready to supplement the regular Army, if the need arose. The first Secretary of War, Henry Knox, later submitted a plan that would reorganize the militia under federal control to augment the existing seven-hundred-man U.S Army. Both plans combined the idea of a citizen's right to bear arms and the concept of universal service. However, neither of these plans were approved by the congress. "The idea of universal service was accepted in theory but was never implemented." [Ref. 19]. The states were against universal service and a large standing army or a reserve militia controlled by the Federal government as possible interference in individual states rights. Additionally, the cost of maintaining a force of this type was considered enormous. The dominant view was that standing armies in peace were not in keeping



## II. BACKGROUND

### A. HISTORY OF REPRESENTATIVENESS AND RECRUITING

#### 1. Revolutionary War

Representativeness in the U.S. military has been a long standing tradition modeled in the Anglo-Saxon concept, under which every free man between the ages of sixteen and sixty was obligated to respond, fully equipped, to any call to arms. [Ref. 13].

Prior to the Revolution, the original militias of colonial America every available man--white or black, freedman or slave--was to help defend the domestic order against Indian uprisings, European transgressors and other threats to peace. [Ref. 14]. This concept of citizen militia--the idea that to be a citizen was to have the obligation to bear arms in the defense of the nation--became the standard of American military tradition. But, as the colonies became secure and Indian threats faded, the need for the militia diminished and the system deteriorated through deferments and exemptions. [Ref. 15]. Therefore, participation in the militia became voluntary and the units became increasingly social in nature.

In addition, the colonies developed a policy of excluding blacks from military service, because of the fear that free black militiamen might support insurrections and a related apprehension about training slaves in the use of arms. [Ref. 16].

During the Revolutionary War, all states resorted to conscription. Since the Articles of Confederation stressed freedom from central authority, Congress was helpless in rectifying the inequities. It lacked the power to draft;

basic failure in Vietnam was because of a lack of unit cohesion. [Ref. 12]. Therefore, the policy of social representativeness is vitally important to an American military.

The purpose of this study was twofold. First was the study of the socioeconomic characteristics of Army enlistees over a 14-year period to determine if any trends existed. Second was a comparison between the civilian society in 1982 and the Army's accessions in 1982 to test for social representativeness.<sup>4</sup>

Chapter II describes the history of social representativeness and recruiting in the American military. Also, this chapter examines the progress of the AVF over the ten years period since its inception?

Chapter III describes the data and variables used in this study. Also in this chapter is a description of the methodology used to process the data.

Chapter IV reports trends in the socioeconomic characteristics of Army recruits from 1970 to 1984. The socioeconomic characteristics studied include geographic region, race, sex, education, mental aptitude, family income, age and marital status. This was done to determine if the composition of those volunteering for Army service had changed over the fifteen years (1970-1984) studied.

Chapter V examines the social representativeness of the Army enlistees in 1982. The variables used to make the comparison with civilian society were geographic region, race, sex, education, and family income.

Chapter VI provides a summary and conclusions in light of the present research.

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<sup>4</sup>Data on civilian population after 1982 are not yet available.

rates show a positive correlation with socioeconomic variables, particularly education. [Ref. 6]

In this respect, the Military Manpower Task Force (MMTF) concluded that socioeconomic factors such as "race or ethnicity should not be factors in personnel decisions in the military services and service members should be judged on the basis of their qualifications and performance as individuals, not as members of social or ethnic groups."

[Ref. 7] However, Military effectiveness can be examined as "individual capabilities, group performance, and the perceptions of foreign countries". [Ref. 8].

Therefore, the importance of group relationships cannot be overlooked in discussing military effectiveness. Moskos contends that the most important things under combat situations are the social composition effect and the chemistry of unit cohesion which requires a blend of talents and backgrounds among members. [Ref. 9]. This by no means indicates that being middle class will make an outstanding military, but it implies that all socioeconomic classes should participate in the military for the benefit of the nation.

One research confirms the observations of commanders and NCOs who remember the draft period; middle class and upwardly mobile youth helped enrich the skill level and commitment of military units in peace as well as in war. [Ref. 10].

Some believe that racial tensions adversely affect unit cohesion. The reason would be that "unit cohesion is the degree to which the members of a group or unit feel an attraction to that group, and want to continue to belong it". [Ref. 11]. The unit cohesion among members in the peacetime force are very important to a future combat situation. This is required more in the Army than in other services under combat. Gabriel and Savage state that the

trends in the socioeconomic characteristics of recruits during that period. Also, the characteristics of those people who enlisted in 1982 were compared to the U.S. population of 1982 for socioeconomic representativeness.

Ccooper says that socioeconomic representativeness is one of the major equity issues in manpower procurement and equality of opportunity is an increasing social concern. [Ref. 4]. It would be undesirable to have the military composed of persons from only one region of the country or one racial group.

In March 1975 Army Secretary Howard H. Callaway described the Army's manpower recruitment goals, taking the issue of 'representation' to its idealistic extreme:

"What we seek, and need, are quality soldiers -men and women- who are representative of the overall population. Ideally, we would like to have at least one person from every block in every city, one from every rural delivery route, and one from every street in every small town. Our obligation to the American people is to strive to field an Army which is both representative of them and acceptable to them.

What the nation needs, Callaway explained, is an Army broadly representative of all Americans which, to the greatest extent possible, would contain roughly the same percentages at various income levels and educational levels." [Ref. 5]

This says that "quality personnel" should be representative of all regional, economic, and racial segments of society. Also, this discussion has aspects of both equity and responsibility based on the notion that it is every citizen's right and obligation to aid in the defense of his (or her) country.

Additionally, military effectiveness also enters the argument. Military effectiveness is an elusive concept.

Moskos insists that there is a relationship between socioeconomic background and soldierly performance. He says that combat effectiveness, productivity, and low discipline

the Army today is much more demanding in its technical and managerial chores. These trends would have occurred even if peacetime conscription had been continued." [Ref. 52].

Another concern has been focused on the racial comparisons in educational level: "The proportion of black recruits in fiscal 1981 with a high school diploma exceeded the comparable proportion of white recruits by a substantial margin. This trend has attracted some attention since it is well known that the education levels of American blacks trail behind those of their white counterparts. While the gap has narrowed in recent years, blacks' educational attainment is still markedly lower than that of whites. "In point of fact," notes one observer, "today's Army enlisted ranks is the only major arena in American society where black educational levels surpass those of whites and by a significant degree." [Ref. 53]

Women, in the meantime, made a large contribution to overall quality in the Army: "Between 1981 and 1983 women made up 13 percent of Army recruits and accounted for 15 percent of the high school diplomas. Overall, the impact of women on the educational profile of military recruits has been telling: in the decade following the end of the draft, 92 percent of all women who enlisted in the Army had completed high school, compared with just under 62 percent of the men. Had the Army not expanded the opportunities for women soldiers, it is doubtful if the all-volunteer force could have survived the 1970s." [Ref. 54]

#### b. Aptitude level

Mental aptitude in military plays an important part in the personnel screening, classification, training, and assignment. The services especially use aptitude scores as the principal predictors of trainability.

However, this aptitude test has been disputed in the Army: " For the first several years, the armed services attracted roughly the same proportion of high-aptitude (category I and II) recruits as they had during the draft years, but a substantially larger proportion of those with average aptitude and, commensurately, a smaller percentage of those in the lowest category. the latter part of the 1970s, however, proved to be a difficult time as the effectiveness of the armed forces in general and the quality of their members in particular came under question; in 1977-80, 44 percent of new recruits were in category IV. The Army was the most seriously affected; close to half of all its male recruits scored in the bottom category." [Ref. 55]

In addition to this, another confusing problem has been occurred in regards to entry test results: "With the introduction of a new version of the standardized entry test in 1976, errors in converting raw test scores into percentile scores caused the latter to be overstated, with the result that many recruits who would otherwise have been ineligible were accepted by the military services. The magnitude of the error was substantial; for example, in contrast to the original belief that only 5 percent of the recruits who entered the armed forces in fiscal 1979 had scored in category IV, corrected scores placed 30 percent in that category. The Army was the most seriously affected- close to half its recruits were below average rather than 9 percent, as reported originally." [Ref. 56]

### 3. The Mobilization problem

To bring the full national power to bear in a major war, the Active Force must be rapidly reinforced by units of the Selected Reserve and Individual Ready Reserve (IRR). The main manpower problem of the Selected Reserve in the

mid-1970s was the loss of strength in the Army National Guard and Army Reserve. Also, "there is currently a serious shortage of manpower in the Army IRR, which had topped 1.2 million in 1973, was half that size by 1975. The shortfall will be reduced to some extent by 1988, but there will still be a shortage of about 240,000 enlisted soldiers with combat-related skills who would be required to replace wartime casualties in the event of a major war that begins with little warning." [Ref. 57]

Regardless of the importance of the reserves, this problem was not emphasized on the grounds that "A conventional war would not last long enough for the reserves to matter anyway. The "short war" school of thought contended that a future conventional conflict would be measured in terms of days or weeks, rather than months or years, ending early in either negotiations or escalation to nuclear war. In 1978 a test of the nation's mobilization capabilities revealed that, should the forces of NATO and the Warsaw Pact square off in a replay of World War II, the Army would soon run short of combat troops. Accordingly, mobilization capabilities received more attention, and concerns about the reserve forces were taken more seriously." [Ref. 58]

#### 4. Social Composition

The most persistent concerns about the all-volunteer force has been its failure to attract a representativeness of the population. For example, in 1982, the proportion of blacks in the enlisted force was 33 percent in the Army, while the population as a whole was 12 percent black. This high black content of the force has come about as a result of the opportunities they have found in the military services. [Ref. 59]

One of the interesting changes in the structure of the enlisted ranks is that the percentage of blacks in the

higher grades has been increased: "Between 1964 and 1980, the percentage of blacks in grade E9 increased from 3.3 percent to 19 percent. For grade E7, for the same period, the increase was from 7.9 percent to 25.2 percent. Given that blacks will have authority over whites to a significant degree within the enlisted grades, we must ask to what extent issues of reverse discrimination will evolve. Unlike the civilian sector, where the concept refers to majority members discriminating against other majority members on behalf of a minority, in military institutions blacks have significant authority over whites." [Ref. 60]

But on the other hand, "the proportion of black officers in the armed forces remained out of balance despite a more than twofold increase over the period, from 2.3 percent in 1972 to just over 5 percent in 1981." [Ref. 61]

One school of thought held by some such as Morris Janowitz has expressed concern that "A military not broadly representative of society would foster its own rigid ethos and weaken civilian control; this group fears that a "professional" rather than a "citizen" army would become isolated from community values and less concerned about the ethics of its own use." Representative Paul Simon, Democrat of Illinois observed, "We are relying excessively on the poor of this country, When blood is shed in Grenada or Lebanon or anywhere else, it is the poor of the country whose blood is shed. There are no sons of members of Congress or members of the Cabinet in Grenada or Lebanon." [Ref. 62]

The trends which are the consequences of this occupational military manpower policy may be seen in the first-term enlisted ranks: "Within the first-term enlisted ranks the effects of the occupational trends are manifested in the changing social composition of recruits, the high level of attrition, the erosion of barracks life, the high incidence



of moonlighting, and in the widespread attitudes of alienation and disaffection." [Ref. 63]

#### 5. Unit Cohesion

The Pentagon has implemented stronger occupational policies for the volunteer system, thus the cohesiveness that is essential to an effective fighting force become weaker: "The emphasis on occupational policies that accompanied the end of conscription, according to a leading critic, has redefined military service in terms of the economic marketplace. One of the principal casualties has been the traditional military lifestyle, the centerpiece of which was barracks life. In an earlier era, when cash pay was low, most junior people were single and ate at the mess hall and lived with their unit on post. Today, however, many volunteers, with higher levels of disposable income, are often married and choose to eat and to live on the civilian economy. This change, so the argument goes, has undermined unit camaraderie and has diminished military effectiveness." [Ref. 64] Teenagers will become more rational and more selfish. Nobody expects that money will attract many young men to enlist if they think they will soon be shot.

Briefly speaking, under those circumstances, it becomes doubtful that in time of war those young men who are produced in complicated problems could fight against Soviet military capability that now exceeds that of 1970s.

### III. DATA AND METHODOLOGY

#### A. DATA BASE

The data used in this analysis were furnished by the Defense Manpower Data Center (DMDC), located in Monterey, California. DMDC maintains and stores many kinds of manpower data files. This DMDC cohort file furnished the cohort data needed for analysis.

The file contains the information on Army enlistees at the time of their enlistment as well as approximately 75 elements of personal data. For purposes of this study, only ten elements were used: District, Educational level, Sex, Race, Marital status, Mental aptitude, Enlist year, ZIP code, and Family income. Among these elements family income was obtained from the Census Bureau through DMDC. To examine family income, the approximately 33,600 zipcodes of population were used.

The population studied here consists of non-prior and prior service accessions entering active service from the year 1970 to 1984, when it included both the draft system (1970-72) and the Volunteer system (1973-84).

The data files were based on calendar year instead of the fiscal year. The reason is that until 1977 the fiscal year began on July first, but since then the beginning of the fiscal year was changed to October first. Table 1 shows the population of each entering cohort.

Some of the elements were further defined. For example, Home states, the enlistee's home of record at time of entry, was divided into five Districts. The five Districts are Northeast, North Central, South, West, and Other. The Districts consist of the states groups shown in Table 2.

**TABLE 1**  
**The Total Enlistees of Each Year**

Enlist Year	Number of Enlistees	Enlist Year	Number of Enlistees
1970	80,691	1978	129,186
1971	175,184	1979	155,684
1972	194,864	1980	162,947
1973	160,167	1981	139,604
1974	213,778	1982	131,200
1975	187,508	1983	146,502
1976	195,831	1984	106,215
1977	160,184		

Source: Derived from data provided by Defense  
Manpower Data Center, April 1985.

This classification of Districts is almost identical to the four Census regions which are classified, Northeast, North Central, South, West. So, the classification of Districts in Chapter V were used in the same way with Census regions.

The errors of each elements were classified as 'unknown', or ignored, because it did not affect the total percentiles. This type of errors were regarded as errors occurred in transcribing, recording, coding, and processing the data.

#### **B. DATA MANIPULATION**

Analysis of the available information was conducted through the use of frequency distributions of cases within contingency tables. This was accomplished with the use of the Statistical Analysis System (SAS), an integrated computer system for data analysis.

**TABLE 2**  
**The States in Each District**

District	States Group
Northeast	New Hampshire, New York, Maine, Vermont, Massachusetts, Connecticut, Pennsylvania, New Jersey, Rhode Island
North Central	Kansas, North Dakota, South Dakota, Nebraska, Missouri, Wisconsin, Minnesota, Iowa, Illinois, Ohio, Michigan, Indiana
South	Virginia, West Virginia, Florida, North Carolina, South Carolina, Georgia, Delaware, Mississippi, Maryland, Arkansas, Louisiana, District of Columbia, Tennessee, Alabama, Kentucky, Oklahoma, Texas
West	Idaho, Wyoming, Colorado, Montana, New Mexico, Arizona, Utah, Nevada, Alaska, Washington, California Hawaii, Oregon
Other	Virgin Islands, Puerto Rico, Guam, American Samoa, Canal Zone

Source: Derived from data provided by Defense  
Manpower Data Center, April 1985.

SAS contains procedures for selecting variables and rearranging variables as well as the usual descriptive statistics, simple frequency distributions, and crosstabulations.

The crosstabulation is a joint frequency distribution of events according to two or more classification variables. It is used to examine the comparison between the classified elements. This SAS program also provides a simple technique for examining the means and standard deviation of dependent variables among various subgroups in a sample or total population. All of these procedures were used to process the data for this study.

For assisting in interpretation and presentation of the results, some of the elements were recategorized into larger sets. The element, race, originally consisted of three groups; white, black, and other. The "other" category includes Oriental and Polynesian races. Since the "other" and the "black" category both represent minority races, race was recategorized into white and nonwhite categories. So, these came to represent majority and minority groups.

Educational level is the highest grade completed. This was rearranged in two ways. The first method was to classify each grade into broad groups of education as can be seen in Table 3.

**TABLE 3**  
**The Classification of Education**

Classification	Highest year of Education
1. Non-high school graduate	1-7 years, 8 years, 1 year high school, 2 year high school, 3-4 year high school (No diploma)
2. GED equivalence	High school G.E.D
3. High school graduate	High school diploma
4. Some college or higher	1,2,3-4 years college (No diploma) College graduate, Masters and Doctors or equivalent

The second method was to classify the groups as nonhigh school graduates and high school graduates. Non-high school graduates are those who did not complete high school, including GED equivalence. High school graduates are those

who completed the twelfth grade and received a diploma (including those who went on to college)

The mental aptitude variable is the enlistee's mental group classification based on scores on the Armed Forces Qualification Test (AFQT). AFQT scores are used to determine eligibility to enlist and assignment to occupations. AFQT scores provide a useful measure of trainability. Enlisted personnel with higher test scores tend to be assigned to the more complex jobs. A mental group is based on AFQT percentiles. The mental groups and the AFQT percentile ranges are shown in Table 4.

TABLE 4

U.S. Armed Forces Qualification Test Scores (AFQT)  
by Categories

AFQT Group	AFQT Percentiles
I	99 - 93
II	92 - 65
IIIA	64 - 50
IIIB	49 - 31
IIV	30 - 21
IIVB	20 - 16
IIVC	15 - 10
V	09 - 01

Source: Department of Defense

These variables were recategorized into two groups: I through IIIa and IIIb through V (the upper and lower halves of the AFQT percentiles). The reason is that an AFQT percentile score of 50 is average for the population.

The family income element of enlistees was estimated by matching enlistees' zipcodes to the population's zipcode

area. In order to simplify the complicated variables, family income was recorded into 10 groups which have intervals by \$5000 income. The coded values and the range of family income can be seen in Table 5.

**TABLE 5**  
**The Coded values and The Range of Family Income**

Coded Value	Range of Family Income (\$)
1	1-9999
2	10000-14999
3	15000-19999
4	20000-24999
5	25000-29999
6	30000-34999
7	35000-39999
8	40000-44999
9	45000-49999
10	50000 and above

A weighted average was obtained by summing the products of the coded value and the number of cases within that respective interval and dividing this sum by total enlistees within district. This methodology was used to produce the mean value of the family income variable. This method and data recording were used to generate the tables and figures presented in Chapter IV.

Also, with grouped data it isn't possible to determine the median exactly, because the actual data values have been lost in the process of grouping. It is possible to approximate the median on the assumption that the actual data values are evenly spread over the class interval. The approximation formula is

$$\text{Median} = L + W/F_m * (.5 N - CF_b)$$

where L= lower limit of the interval containing the median

W= width of that interval

F<sub>m</sub>=frequency in that interval

C<sub>Fb</sub>=cumulative frequency (total count) below that  
interval

N=total number of values This methodology was used to  
calculate the median value of the family income variable in  
Chapter V.



#### IV. SOCIOECONOMIC CHARACTERISTICS

With the SAS program, it was possible to process a great number of data of each year for the analysis of socioeconomic characteristics of Army enlistees in the period of 1970 through 1984. Comparisons among years, district, and race were mainly used to identify the changes and trends in the variables. Unless otherwise explained, Army enlisted accessions of all types and sources are included in the data.

##### A. GEOGRAPHIC

First of all, the home area was studied to determine the geographic representativeness of Army enlistees. This provide a good measure of how the social composition of the force has varied over time. In other words, "to the extent that individuals' attitudes, mores, and behavior are shaped by their environment, then measures that reflect the environmental background of enlisted accessions are important descriptors of social composition." [Ref. 57]. As described in Chapter III, the regions were divided into five districts corresponding with the DMDC classification. The percentage of enlistees from each district for each year is shown in Table 6.

The enlistees coming from the south have occupied the largest portion (34.9-42.5%) of percentage, followed by the north central (22.0-30.1%), the north east (14.3-19.9%), the west (15.5-19.3%), and the other (0.6-2.8%). The most dramatic change was the percentage of both the north central (8.1%) and south (7.6%) during that period. The beginning period (1970-1974) compared to the ending period (1980-1984)

**TABLE 6**  
**Percentage Distribution of Army Accessions,**  
**1970-84 by District**

Enlist year	North- East	North Central	South	West	Other	Total
1970	16.5	29.2	36.2	17.6	0.6	100.0
1971	15.4	30.1	34.7	18.6	1.2	100.0
1972	15.9	27.1	37.6	17.9	1.4	100.0
1973	14.3	22.0	42.6	19.3	1.8	100.0
1974	15.9	23.1	39.7	19.4	1.9	100.0
1975	18.8	25.5	35.0	19.2	1.5	100.0
1976	19.9	25.9	35.1	17.4	1.7	100.0
1977	20.0	24.9	37.4	15.7	2.0	100.0
1978	17.4	22.6	41.4	15.7	2.8	100.0
1979	17.7	24.1	39.8	15.7	2.7	100.0
1980	18.1	26.0	37.1	16.6	2.2	100.0
1981	17.3	27.6	37.2	15.6	2.4	100.0
1982	17.6	28.6	35.0	16.1	2.7	100.0
1983	17.4	29.2	35.4	16.5	1.5	100.0
1984	16.4	29.1	36.4	16.5	1.5	100.0

Source: Derived from data provided by Defense  
Manpower Data Center.

indicates that the south and north central has remained relatively stable at a high rate. The increase has been made by the north east (approximately 2%) and the other (approximately 0.4-1.4%). The west only decreased (approximately 2-3%) during that period.

#### B. RACE

Next, the racial composition of the enlistees was determined for each year. The two groups were white and nonwhite (black and all other races). This was done to place all minority races into one category to determine their representation in the Army. As Cooper observed, "The descriptor most frequently thought of in terms of social representation is the racial composition of the Armed Forces. Few subjects

TABLE 20

Percent of Army Accessions who were in AFQT  
Category I-IIIa, by Race, 1970-84

Enlist Year	1970	1971	1972	1973	1974	1975	1976	1977
White	58.0	58.7	61.2	58.6	57.6	64.3	52.5	46.2
Nonwhite	21.8	23.2	27.6	31.8	31.6	35.7	24.4	16.4
Enlist Year	1978	1979	1980	1981	1982	1983	1984	
White	50.1	40.1	41.4	52.5	67.6	70.7	71.2	
Nonwhite	17.8	12.5	11.6	19.1	31.7	38.2	37.3	

Source: Derived from data provided by Defense  
Manpower Data Center.

TABLE 21

Percent of Army Accessions who were in AFQT  
Category I-IIIa, by Sex, 1970-84

Enlist Year	1970	1971	1972	1973	1974	1975	1976	1977
Male	53.4	52.5	53.1	52.1	50.1	56.1	40.9	33.9
Female	44.1	75.2	94.3	40.1	54.1	73.2	81.7	66.5
Enlist Year	1978	1979	1980	1981	1982	1983	1984	
Male	34.6	28.3	31.6	41.6	55.3	60.7	60.6	
Female	58.0	34.7	29.4	44.3	73.4	74.5	71.8	

Source: Derived from data provided by Defense  
Manpower Data Center.

are in the upper 50 percentile on the AFQT. These tests are supposed to be normed to the entire US population.

Table 19 provides data concerning the percentage of recruits that were classified in the upper mental groups (i.e., Groups I to III), during the period, there was a 23.9 % decrease from 1970 through 1979, and a 32.9 % increase from 1980.

TABLE 19

Percent of Army Accessions who were in AFQT  
Category I-IIIa, 1970-84

Enlist Year	1970	1971	1972	1973	1974	1975	1976	1977
AFQT I-IIIa	53.0	53.3	54.6	51.3	50.5	57.6	44.2	36.3
Enlist Year	1978	1979	1980	1981	1982	1983	1984	
AFQT I-IIIa	37.8	29.1	31.3	42.0	57.5	62.4	62.0	

Source: Derived from data provided by Defense  
Manpower Data Center.

Table 20 reports the classification by AFQT category that was broken down by racial group, that is, white and nonwhite.

Although both racial groups increased their percentage in the Mental Group (I-IIIa), there was too small percentage in the nonwhite (37.3%) by comparison with the white (71.2%).

Table 21 shows the percentage of recruits that were classified by Sex. The percent of both males and females in

TABLE 18

Percent of Army Accessions who were High School Graduates, by District, 1970-84

Enlist year	North- east	North Central	South	West	Other
1970	60.7	58.9	52.9	63.8	49.3
1971	59.2	56.7	52.2	59.7	61.3
1972	59.3	58.7	52.8	56.9	66.0
1973	61.9	61.7	53.4	59.8	71.7
1974	55.2	53.3	52.4	53.7	67.8
1975	64.8	63.9	66.5	62.6	83.7
1976	59.1	50.8	60.0	54.7	80.5
1977	63.7	60.1	68.0	45.1	85.8
1978	74.5	68.6	75.2	67.5	90.2
1979	60.0	55.8	65.1	52.7	81.8
1980	58.7	58.5	65.1	55.7	82.1
1981	76.9	77.3	80.1	76.7	93.1
1982	87.9	89.4	88.6	85.6	97.2
1983	87.2	88.5	78.2	84.5	96.4
1984	89.4	90.4	89.4	87.2	96.3

Source: Derived from data provided by Defense Manpower Data Center.

percentage of the high school graduates is the recruits coming from the west (87.2%).

#### E. MENTAL APTITUDE

In addition to educational attainment, another indication of social composition of enlistees is mental aptitude as measured by the AFQT mental group classification system. The mental groups are based upon Armed Services Vocational Aptitude Battery (ASVAB) scores recorded on the services' data files. Using this system, the Army determines those they consider eligible for technical training beyond recruit training. Those who fall into Mental Groups I through III the Army considers to have sufficient ability to finish additional training. This group is composed of those who

Table 17 displays the composition of the male and female cohort by educational level.

**TABLE 17**  
**Percent of Army Accessions who were High School**  
**Graduates, by Sex, 1970-84**

Enlist Year	1970	1971	1972	1973	1974	1975	1976	1977
Male	56.5	55.1	55.1	55.8	50.0	66.3	54.1	62.3
Female	90.7	87.9	89.6	88.6	87.4	89.4	88.5	88.0
Enlist Year	1978	1979	1980	1981	1982	1983	1984	
Male	69.1	55.7	56.2	76.1	87.0	85.6	88.1	
Female	96.5	90.3	92.1	92.7	98.0	98.3	99.3	

Source: Derived from data provided by Defense  
Manpower Data Center.

As illustrated by the data in this Table 17, the male cohort of high school graduates increased by 31.6% over the period. The female cohort, on the other hand, increased by 8.6%. But nowadays they remain with almost 100%.

The geographic distribution of high school graduates was also explored in Table 18.

The data in Table 18 are for the percentage of high school graduates coming from each district over the period. The 'other' district increased 47.0% over the period. It was the greatest advance and recently remain over 96%. The south increased 36.5% over the time studied, followed by the north central (31.5%), the northeast (28.7%), and the west with the smallest increase (23.4%). However, the lowest

**TABLE 15**

**Percent of Army Accessions who were High School Graduates, by Race, 1970-84**

Enlist Year	1970	1971	1972	1973	1974	1975	1976	1977
White	58.1	56.4	56.1	58.3	52.7	63.1	54.1	62.2
Ncnwhite	56.4	55.1	57.3	57.2	55.9	70.2	63.4	69.8
Enlist Year	1978	1979	1980	1981	1982	1983	1984	
White	69.5	56.4	56.4	74.5	86.0	85.3	87.5	
Ncnwhite	78.2	66.6	70.1	87.4	94.3	92.4	94.6	

Source: Derived from data provided by Defense Manpower Data Center.

**TABLE 16**

**Percent of Army Accessions who were Non-High School Graduates, by Race, 1970-84**

Enlist Year	1970	1971	1972	1973	1974	1975	1976	1977
White	56.4	55.1	57.9	57.2	55.9	70.2	63.4	69.8
Ncnwhite	43.6	44.9	42.7	42.8	44.1	29.8	36.6	30.2
Enlist Year	1978	1979	1980	1981	1982	1983	1984	
White	78.2	66.6	70.1	87.4	94.3	92.4	94.6	
Ncnwhite	21.8	33.4	29.9	12.6	5.7	7.6	5.4	

Source: Derived from data provided by Defense Manpower Data Center.

**TABLE 14**  
**Percentage Distribution of Army Accessions,**  
**by Educational Level, 1970-84**

Enlist Year	Non-High School	GED	High School	Some College and Over	Total
70	39.9	2.3	40.0	17.8	100.0
71	38.2	5.6	42.0	14.2	100.0
72	34.8	8.8	45.1	11.2	100.0
73	37.0	8.0	50.5	7.6	100.0
74	37.1	9.3	47.8	5.8	100.0
75	26.0	9.3	55.7	9.0	100.0
76	38.0	2.2	51.0	5.9	100.0
77	31.1	5.2	59.2	5.5	100.0
78	22.3	5.0	66.7	6.1	100.0
79	32.7	6.8	56.2	4.3	100.0
80	33.0	9.9	56.5	4.5	100.0
81	15.2	6.3	71.1	7.4	100.0
82	6.9	4.8	78.6	9.8	100.0
83	7.0	5.9	76.6	10.6	100.0
84	5.8	4.7	79.6	9.8	100.0

Source: Derived from data provided by Defense  
Manpower Data Center.

graduates or non-high school graduates. This grouping facilitated comparing educational attainment between races, the sexes, and geographic regions.

The data in Table 15 shows the comparisons of the two racial groups by their educational attainment.

Although both groups had an increase in the percentage of high school graduates, the non-white group's gain was much greater, 38.2% to 29.4% respectively. This also represents a decrease in non-high school graduates in the non-white group. That is, the rate between the white and the nonwhite was 56.4% to 43.6% in 1970, 94.6% to 5.4% in 1984 as can be shown in Table 16.



tendency for first-term enlistees in the army to marry is sharply higher. One could guess that the competitive pay scales for junior enlistees have encouraged that trend." [Ref. 63].

#### D. EDUCATIONAL LEVEL

The next variable studied was the educational level attained by the Army recruits. as Cooper asserted, "Although it may be more common to view educational attainment and mental aptitude in terms of job requirements, they can also be viewed as indicators of social composition. indeed, some have questioned whether a volunteer military would come to be populated by only the uneducated and mentally inept." [Ref. 64]. Table 14 displays the percentage of enlistees by year, whose highest level of education falls into one of the four broad categories.

A GED equivalency was put into a separate category, because these recruits did not complete the twelfth year of education, although they are considered the same level as a high school graduate. As demonstrated by Table 14, the percentage of those with less than a high school diploma has decreased over the period. The most dramatic changes in percentages of those with at least a high school diploma occurred twice, from 1976 to 1977 and from 1980 to 1981. In 1977 and 1981 there was a great increase in the percentage of high school graduates enlisting, 16.2% and 26.5% respectively. This corresponds with a sudden decline in enlistment of non-high school graduates. Especially, the decrease of 26.2% of enlistees with non-high school graduate is, by comparison with 1980, a 79.4% reduction between 1980 and 1982.

To further analyze the education level of the Army's accessions, they were categorized as either high school

Moskos and John H. Faris: " Since E-4s during the draft era, on the average, were older than present E-4s, the comparison understates the increasing incidence of married junior enlisted perscnnel. This increase runs counter to national patterns where the clear trend is toward later marriage." [Ref. 62]. Table 13 reveals the marital status of t's enlistees at time of entry.

**TABLE 13**  
**The Marital Status of All Army Accessions, 1970-84**

(Percent)

Enlist Year	1970	1971	1972	1973	1974	1975	1976	1977
Single	85.3	83.0	86.2	84.5	81.0	79.4	84.6	87.0
Married	14.7	17.0	13.8	15.5	19.0	20.6	15.4	13.0
Enlist Year	1978	1979	1980	1981	1982	1983	1984	
Single	88.1	87.1	85.9	84.4	84.2	84.9	87.2	
Married	11.9	12.9	14.1	15.6	14.8	15.1	12.8	

Source: Derived from data provided by Defense Manpower Data Center.

There was a sudden increase of married recruits in 1974 and 1975. Conversely the lowest percentage of the married recruits occurred in 1978. This trends matched with periods of the economic expansion and contraction, for example, the married recruits was increased in 1973-74, when the labor market had slackened, as it did in 1973-74, and was decreased in 1976-79, when the labor market had declining rates of unemployment. This means that "In the general population young people seem to be postponing marriage, the

Another variable studied here is Age which is a factor in changing social composition as described by Lacy: "Apart from a minimum age below which it would not reach (age 18) and a maximum beyond which it would not go (in World War II, age 45), America never did settle conclusively on a single, preferred age of induction. Whether a 19-year-old makes a better soldier than a 24-year old, and vice versa, remains a matter of disagreement within the defense community itself." [Ref. 61].

Table 12 shows the mean age of Army Accessions by year. As the table shows, the age of Army recruits has increased little by little over the period. The highest mean age occurred in 1980, and after then, almost remained constant with over age 20. Throughout the period the mode was age 18.

**TABLE 12**  
**The Mean Age of All Army Accessions by Year, 1970-84**

Enlist Year	1970	1971	1972	1973	1974	1975	1976	1977
Mean Age	19.6	19.5	19.1	19.3	19.6	19.8	19.6	19.7
Enlist Year	1978	1979	1980	1981	1982	1983	1984	
Mean Age	19.8	19.8	20.0	20.3	20.2	20.2	20.0	

Source: Derived from data provided by Defense Manpower Data Center.

The marital status has been a good evidence in changing social composition of recruits as observed by Charles C.

**TABLE 10**  
**Female Accessions as a Percent of All Army**  
**Accessions, 1970-84**

Enlist Year	1970	1971	1972	1973	1974	1975	1976	1977
Female (%)	4.1	3.2	3.8	6.7	9.6	9.0	8.1	9.4
Enlist Year	1978	1979	1980	1981	1982	1983	1984	
Female (%)	13.7	13.8	13.6	14.7	12.2	12.1	12.1	

Source: Derived from data provided by Defense  
 Manpower Data Center.

**TABLE 11**  
**Nonwhite Females as A Percent of All Army**  
**Accessions, 1970-84**

Enlist Year	1970	1971	1972	1973	1974	1975	1976	1977
Nonwhite Female (%)	21.7	18.9	19.1	20.1	23.3	17.7	24.0	24.8
Enlist Year	1978	1979	1980	1981	1982	1983	1984	
Nonwhite Female (%)	35.4	45.2	44.4	40.6	31.9	32.9	36.7	

Source: Derived from data provided by Defense  
 Manpower Data Center.

upward trend in the percentage from the west (7.3%-12.9%) and the other (0.4%-1.7%). The percentage of the northeast and north central has remained moderately constant over the period. The largest fluctuation was the percent of the nonwhites enlisting from the south, which ranged from a low of 49.2% in 1983 to a high of 68.6% in 1973.

### C. SEX, AGE, MARITAL STATUS

Female enlisted strength must become greater in number to meet the Army's goal of 70,000 enlisted women on active duty by February 1987. Sex is also a indicators of social composition. As James L. Lacy notes, "The male-only draft derived much of its historical rationale from the fact that military service itself was almost exclusively a male experience. Before 1970, less than 1 percent of military personnel were women. However, the AVF introduced new facts. Women were actively recruited in the 1970s; by 1980, they accounted for 8 percent of the active-duty force." [Ref. 59] Table 10 displays the percentage of women of the total recruited.

As can be seen in table 10, from 1970 to 1984, female representation in the enlisted force grew from 4.1% to 12.1%. Until 1981 there has been a continual increase in the number of women recruits. Since 1982 an upward trend is shown. As noted by the Military Manpower Task Force, "This increase has been consistent with the national emphasis on improving opportunities for women in non-traditional occupational field." [Ref. 60].

If the women entering the Army are broken into white and non-white groups, the increasing percentages of non-white women can be found in the Table 11. Over the period, there was a 69.1% increase of women recruits. However, the recent records have remained moderately constant with the pretty high rates (31.9%-45.2%).

The trend for all districts was an increase in the non-white recruits over all periods. The most dramatic change occurred in the south, varying from a low of 22.47% to a high of 56.52%. On the other hand, the percentage of white enlistees entering the Army for all districts decreased over that period. The most dramatic decrease occurred in the West, dropping from 94.19% to 78.83%.

Table 9 displays the percentages of Army accessions in non-white groups that came from each district over that period.

**TABLE 9**  
**Percentage Distribution of Nonwhite Army**  
**Accessions, 1970-84 by District**

Enlist year	North- East	North Central	South	West	Other	Total
1970	14.8	18.7	58.3	7.3	0.4	100.0
1971	15.1	20.1	54.4	9.4	1.0	100.0
1972	14.7	14.9	61.1	8.4	0.9	100.0
1973	10.8	10.7	68.6	8.8	1.0	100.0
1974	13.2	13.1	62.5	9.4	1.7	100.0
1975	16.6	16.1	54.3	11.3	1.5	100.0
1976	18.5	17.1	53.1	9.8	1.4	100.0
1977	17.1	15.5	56.3	9.6	1.4	100.0
1978	13.6	13.9	61.6	9.5	1.4	100.0
1979	16.3	16.7	55.8	9.9	1.1	100.0
1980	18.4	16.6	51.6	11.6	1.5	100.0
1981	16.4	18.0	53.4	10.6	1.4	100.0
1982	17.8	19.1	49.7	11.7	1.5	100.0
1983	17.6	16.5	49.2	12.2	1.3	100.0
1984	15.6	19.7	49.8	12.9	1.7	100.0

Source: Derived from data provided by Defense Manpower Data Center.

This revealed that over one-half of the non-white recruits are from the south. These data show, however, a downward trend in the percentage from the south, and an

To further examine the racial composition and regional representation, the percentage of recruits of white group and non-white group was computed. These figures are shown in Table 8.

**TABLE 8**  
**Army Accessions by Race, Region, and Year, 1970-84**

Enlist year	North- East	North Central	South	West	Other
White					
1970	87.5	91.0	77.5	94.2	91.2
1971	84.9	89.7	75.9	92.2	87.1
1972	83.0	89.3	68.3	90.9	87.9
1973	79.3	86.7	55.9	87.4	85.1
1974	77.4	84.5	56.9	86.8	75.5
1975	79.5	85.4	63.9	86.4	76.7
1976	72.5	80.5	55.1	83.2	75.6
1977	71.5	79.3	49.9	79.6	76.4
1978	70.2	76.7	43.5	77.2	81.2
1979	63.4	74.4	44.3	75.0	83.0
1980	65.4	78.2	52.6	76.2	76.6
1981	70.1	79.5	55.0	78.7	81.6
1982	71.8	81.4	60.5	79.7	79.4
1983	74.0	82.9	64.3	81.0	77.4
1984	74.1	81.6	62.8	78.8	70.1
Nonwhite					
1970	12.5	9.0	22.5	5.8	8.8
1971	15.1	10.3	24.2	7.8	12.9
1972	17.0	10.7	31.7	9.1	12.1
1973	20.7	13.3	44.1	12.6	14.9
1974	22.6	15.5	43.1	13.2	24.1
1975	20.5	14.7	36.1	13.6	23.4
1976	27.5	19.6	44.9	16.8	24.4
1977	28.5	20.7	50.1	20.4	23.6
1978	29.8	23.3	56.5	22.8	18.8
1979	36.8	25.6	55.7	25.0	17.0
1980	34.6	21.8	47.4	23.8	23.4
1981	29.9	20.5	45.0	21.3	18.4
1982	28.2	18.6	39.5	20.3	20.6
1983	26.0	17.2	35.7	19.0	22.6
1984	26.0	18.4	37.2	21.2	29.9

Source: Derived from data provided by Defense Manpower Data Center.

have generated as much interest or as much concern as the rising proportion of blacks in the enlisted ranks. This is viewed by many as evidence that the volunteer force has not, or cannot, draw from the middle and upper socioeconomic segments of American society." [Ref. 58]

Table 7 shows the percentage of non-white Army recruits by year.

**TABLE 7**  
**Nonwhite Accessions as a Percent of All**  
**Army Accessions, 1970-84**

Enlist Year	1970	1971	1972	1973	1974	1975	1976	1977
Nonwhite (%)	13.9	15.4	19.5	27.4	27.3	23.2	29.7	33.3
Enlist Year	1978	1979	1980	1981	1982	1983	1984	
Nonwhite (%)	38.0	39.7	34.0	31.3	28.0	25.7	27.2	
Source: Derived from data provided by Defense Manpower Data Center.								

There was a big difference between the draft years (1970-1972), and the period of all-volunteer service (1973-1984). The average was 16.3% and 30.4%, respectively. During the volunteer years (1973-1984), the percentage fluctuated very widely (23.2%-39.7%). Especially 1978 and 1979 the periods recorded with high rates. The only year which did not show a high rate was the year 1975. From 1973 to 1979, there was the trend of increase and then decrease yearly.



the upper mental groups increased. However, while the female had a big increase from 44.1% to 71.8% over the period, the male percentage increase was relatively modest from 53.4% to 60.6%.

#### F. FAMILY INCOME

The individual enlistee's family income was studied to determine a trend in the economic status of the army's recruits. Because of difficulty to obtain consistent data over time, it is assumed that "families with high incomes live in higher income areas than those with lower incomes. In other words, the distribution of enlisted accessions according to the income of individuals' home areas can also be viewed as a proxy for the distribution of accessions according to the income of individuals' own families. Therefore, distributions of enlisted accessions according to home areas provide a useful measure of how the economic status of the force has varied over time." [Ref. 65]. So, the average family income of a zipcode area was used as the indicator of the economic status of the area.

The data used in this study are 1984 average family income of each zipcode area, which was applied to the accessions of each year from 1980 to 1984. The economic status of a zipcode area over five year is assumed to be fairly stable. Although this method has some limitation on accuracy, the trend to be shown should be indicative of the actual trend.

An strong point in using only 1984 income data is that it enable us to familiar with the update figures and eliminates the need to adjust each year's income figures for comparison.

Table 22 shows the percent range of average family income of army accessions by district. Among the districts,

TABLE 22

The Average Family Income of Army Accessions  
by District, in Percentage Distribution, 1980-84

District and Income Level	1980	1981	1982	1983	1984
<b>Northeast</b>	100	100	100	100	100
under 10000	0.1	0.1	0.1	0.1	0.0
10000-14999	6.6	5.3	4.6	4.5	4.4
15000-19999	12.4	11.8	10.6	10.2	10.3
20000-24999	30.3	29.7	29.0	28.7	30.5
25000-29999	26.3	27.5	28.3	28.8	28.4
30000-34999	14.1	14.6	15.3	15.6	14.9
35000-39999	5.8	6.0	6.5	6.6	6.5
40000-44999	2.8	3.0	3.3	3.2	3.1
45000-49999	0.9	1.1	1.2	1.3	1.3
over 50000	0.7	1.0	1.1	1.1	0.7
<b>North Central</b>	100	100	100	100	100
under 10000	0.1	0.1	0.1	0.1	0.1
10000-14999	1.9	1.6	1.6	1.4	1.5
15000-19999	10.5	9.6	8.7	8.2	8.7
20000-24999	23.5	22.8	21.7	21.3	21.3
25000-29999	32.5	32.9	32.9	32.8	32.9
30000-34999	20.4	21.1	21.5	22.4	22.2
35000-39999	7.5	8.3	9.2	9.4	9.1
40000-44999	2.4	2.6	3.0	3.0	2.9
45000-49999	0.7	0.7	0.9	0.9	0.9
over 50000	0.4	0.4	0.5	0.6	0.5
<b>South</b>	100	100	100	100	100
under 10000	0.2	0.1	0.1	0.1	0.1
10000-14999	3.2	2.8	2.5	2.4	2.4
15000-19999	25.2	24.6	22.0	21.2	21.3
20000-24999	37.7	37.6	36.6	35.9	36.7
25000-29999	20.1	20.8	21.8	22.6	22.0
30000-34999	8.0	7.9	9.3	9.5	9.5
35000-39999	3.5	3.6	4.5	4.8	4.8
40000-44999	1.4	1.6	2.0	2.1	2.2
45000-49999	0.5	0.7	0.8	0.8	0.9
over 50000	0.3	0.3	0.4	0.4	0.4
<b>West</b>	100	100	100	100	100
under 10000	0.0	0.0	0.0	0.00	0.0
10000-14999	1.5	1.5	1.2	1.1	1.4
15000-19999	9.2	8.1	7.3	6.8	7.6
20000-24999	22.6	22.1	12.3	20.7	21.2
25000-29999	31.7	31.6	18.9	32.0	32.4
30000-34999	19.3	19.6	21.6	21.4	19.5
35000-39999	10.2	11.2	11.5	11.7	11.1
40000-44999	3.8	4.0	4.1	4.3	4.7
45000-49999	1.2	1.4	1.4	1.4	1.5
over 50000	0.4	1.7	0.7	0.6	0.6

Source: Derived from data provided by Defense  
Manpower Data Center.

however, the Other district here was deleted, because she had too small data. As the table reveals, there was very little change in the income within each district over the period. The greatest changes were among the districts themselves. The West was highest, followed by North Central

TABLE 23

The Average Family Income of Army Accessions  
by Race, in Percentage Distribution, 1980-84

Race and Income Level	1980	1981	1982	1983	1984
White	100	100	100	100	100
under 10000	0.1	0.1	0.0	0.0	0.0
10000-14999	1.5	1.4	1.2	1.2	1.2
15000-19999	11.2	10.8	9.8	9.7	9.9
20000-24999	28.0	27.4	26.3	26.4	26.8
25000-29999	30.3	30.5	30.7	30.5	30.5
30000-34999	17.0	17.1	17.9	18.2	17.6
35000-39999	7.5	7.9	8.7	8.8	8.5
40000-44999	2.9	3.2	3.4	3.4	3.5
45000-49999	0.9	1.1	1.2	1.2	1.2
over 50000	0.5	0.7	0.7	0.7	0.6
Nonwhite	100	100	100	100	100
under 10000	0.2	0.2	0.2	0.2	0.2
10000-14999	6.5	5.6	5.3	5.4	5.2
15000-19999	25.8	25.4	23.3	22.5	22.7
20000-24999	33.8	34.1	33.2	31.7	33.0
25000-29999	19.3	19.9	20.9	22.0	21.5
30000-34999	9.3	9.4	10.9	11.4	11.0
35000-39999	3.4	3.7	4.1	4.5	4.3
40000-44999	1.1	1.1	1.5	1.6	1.4
45000-49999	0.4	0.5	0.5	0.6	0.5
over 50000	0.8	0.2	0.2	0.2	0.1

Source: Derived from data provided by Defense  
Manpower Data Center.

district, the Northeast, and the South. For example, under \$20000 of family income, when the highest and the lowest are compared by percentage, there was a big difference between

the West (10.7%-7.9%) and the South (28.6%-23.7%) during the given period. This would imply that the accessions coming from the South district have poorer economic status than the accessions coming from the West district.

The family income by race was also produced as can be shown in Table 23. The interesting trend in the table is the higher level of income of whites as opposed to nonwhites.

TABLE 24

The Average Family Income of Army Accessions  
by Sex, in Percentage Distribution, 1980-84

Sex and Income Level	1980	1981	1982	1983	1984
Male	100	100	100	100	100
under 10000	0.1	0.1	0.1	0.1	0.1
10000-14999	3.1	2.6	2.4	2.3	2.3
15000-19999	15.9	15.3	13.6	12.9	13.2
20000-24999	29.9	29.4	28.2	27.7	28.4
25000-29999	26.8	27.2	28.0	28.3	28.0
30000-34999	14.5	14.8	15.9	16.5	15.9
35000-39999	6.1	6.6	7.4	7.7	7.5
40000-44999	2.3	2.6	2.9	3.0	3.0
45000-49999	0.8	0.9	1.0	1.0	1.1
over 50000	0.4	0.5	0.6	0.6	0.5
Female	100	100	100	100	100
under 10000	0.2	0.1	0.1	0.1	0.1
10000-14999	3.8	3.4	2.5	2.4	2.5
15000-19999	17.7	16.3	13.8	14.0	14.7
20000-24999	30.5	30.1	28.6	28.1	29.1
25000-29999	24.9	26.8	27.6	28.1	27.9
30000-34999	13.6	13.8	15.7	15.9	15.3
35000-39999	6.0	6.2	7.5	7.5	6.6
40000-44999	2.3	2.2	2.7	2.5	2.4
45000-49999	0.7	0.8	1.0	0.9	1.0
over 50000	0.4	0.5	0.5	0.5	0.4

Source: Derived from data provided by Defense  
Manpower Data Center.

The other computation of family income was based on sex. Table 24 shows that the family income of female accessions was greater than the male's family. This would contain the new fact that the female coming from zipcode areas of high income was much more recruited than the male.

## V. REPRESENTATIVENESS

The relevant population for the question of representativeness is the noninstitutionalized population ages 17 through 24 of all races and both sexes. This is the population group most generally accepted for military service in the Army. These figures are shown in Table 25.

TABLE 25  
Number and Percentage Distribution of Army  
Accessions by Age, 1982

Age	Number	Percent
16	1	0.00
17	9,770	7.45
18	40,231	30.66
19	25,461	19.40
20	14,969	11.41
21	9,959	7.59
22	7,532	5.74
23	5,664	4.32
24	4,304	3.28
Over (24-38)	13,331	10.15
Total	131,222	100.00

Source: Derived from data provided by Defense  
Manpower Data Center (DMDC)

The 17-24 age group represents 89.85 percent of the 131,222 Army recruits in 1982. In assessing the population representation, therefore, it is useful to compare the distribution of aggregate annual male and female accession cohorts with the national population distribution of 17 to 24 year olds.

The data for the U.S. population were taken from the U.S. Bureau of Census Current Population and the 1984 and 1985 editions of the Statistical Abstracts in the United States. Because some of the data are grouped into various age categories which encompass all or some of the ages in the Army cohorts, it was necessary to adjust the data using the weighted average technique.

#### A. GEOGRAPHIC

The first comparison was based on the geographic distribution of two groups. Generally, "Balanced national representation requires that the the Army recruit proportionally from all sections of the Nation, avoiding dependence upon any particular region." [Ref. 74] Table 26 shows the regional distribution of the Army accessions and the U.S. population. Percent difference cited this paper refer to the percent differences of the Army to the relevant populations and were computed as follows:  $(\text{Army \%} - \text{Percent Population \%}) / \text{Percent Population \%}$ .

The greatest difference between the two groups is in the North Central, where there was a 17.82 percent over representation in the Army based on the relevant population. Also, Army accessions in the North East were under represented. Other two regions were over represented in the Army. The 18-24 age group represents 82.4 percent of the 131,222 Army recruits in 1982.

#### B. RACE

Racial composition of the two cohorts was next examined. The range of ages used to determine the sample use for comparison was 17 to 24. Through the use of the weighted average technique the results shown in Table 27 were computed.

TABLE 26

Percentage Distribution of U.S. Population (18 -24)  
and  
Army Accessions (18 - 24) by Region, 1982

Region	Population*	Army	Percent Difference
Northeast	20.64	17.75	-14.00
North Central	25.64	30.21	+17.82
South	34.02	35.80	+ 5.23
West	19.70	16.24	-17.56
Total	100.00	100.00	

\*Source: Statistical Abstracts of the U.S. :1984; and  
Data provided by DMDC.  
Note: Percent Difference =(Army-Population)/Population

TABLE 27

Percentage Distribution of U.S. Population (17 -24)  
and  
Army Accessions (17 - 24) by Race, 1982

Race	U.S. Population*	Army	Percent Difference
White	83.71	70.14	-16.21
Black	13.77	25.80	+87.36
Others	2.52	4.06	+61.11
Total	100.00	100.00	100.00

\*Source: Statistical Abstract of the U.S. :1984; and  
Data provided by DMDC.



The greatest difference between three groups is in the Black, where there was a 87.36 percent over representation in the Army based on the relevant population. Other group was a 61.11 percent over representation, but white group was a 16.21 percent under representation.

Additionally, comparisons of the racial comparison within the census regions to the racial composition of enlistees from each census region were made. The data through the use of the weighted average technique are shown in Table 28. This table shows the racial breakdown within each region of both the relevant U.S. population and the Army accessions between two Races.

All regions were under representative of the white population and were over representative of the black population. The greatest discrepancy being 99.83 percent more blacks from the Northeast in the Army than in the regional population. The South on the other hand 23.88 percent fewer Whites enlisting in the Army than was representative of the black civilian population and had 92.77 percent more blacks enlisting in the Army than was representative of the black civilian population. Black representation of the North Central and of the West was larger than the relevant population by 51.85 percent and 38.37 percent respectively and white representative in two regions was smaller than the relevant population by 6.48 and 2.84 percent respectively.

Table 29 shows the regional distribution between whites and blacks in the Army and in the U.S.. This was limited to persons 18 to 24 years of age and was used the weighted average technique.

The whites were under represented in all regions except in the Northeast, where they were over represented. The Northeast was 34.01 over representation in the whites based on the relevant population. Black representation of the Northeast and of the West was smaller than the relevant

TABLE 28

Percentage Distribution of U.S. Population (18-24) and  
Army Accessions (18-24) by Region, by Race, 1982

Region	Race	Population*	Army	% Difference
Northeast	White	88.01	76.04	-13.60
	Black	11.99	23.96	+99.83
	Total	100.00	100.00	
North Central	White	88.89	83.13	- 6.48
	Black	11.11	16.87	+51.85
	Total	100.00	100.00	
South	White	79.53	60.54	-23.88
	Black	20.47	39.46	+92.77
	Total	100.00	100.00	
West	White	93.12	90.48	- 2.84
	Black	6.88	9.52	+38.37
	Total	100.00	100.00	

\*Source: Statistical Abstracts in the U.S. :1984; and  
Data provided by DMDC.

population by 4.56 and 37.15 percent respectively. Both the South and the North Central were overrepresented based on the relevant population. Also, both the Northeast and the West regions were under represented based on the data in Table 29. The North Central region was over represented by both races and the South region was over represented by black and was under represented by white.

#### C. SEX

As Table 30 shows, 50.40 percent of the 18-24 year old population was male and 88.11 percent of the Army's accessions were male.

**TABLE 29**  
**Percentage Distribution of U.S. Population (18-24) and**  
**Army Accessions (18-24) by Dist, by Race, 1982**

Region	Population*	Army	Percent Difference
White			
North East	20.65	17.76	-14.00
North Central	25.64	34.36	+34.01
South	34.02	29.71	-12.67
West	19.69	18.17	- 7.72
Total	100.00	100.00	
Black			
Northeast	17.32	16.53	- 4.56
North Central	19.75	20.60	+ 4.31
South	53.94	57.22	+ 6.08
West	8.99	5.65	-37.15
Total	100.00	100.00	

\*Source: Statistical Abstracts in the U.S. :1984; and  
 Data provided by DMDC.

Although the utilization of women increases, it is still a predominately male organization. This distribution was used to generate other estimates based on sex. The male and female distributions within the White, Black and Other's group were non equal. Table 31 displays the data for the white and nonwhite group of the 18-24 year old U.S. population by Sex.

The greatest difference between the two groups is in nonwhite male group, where there was a 205.3 percent over representation in the Army based on the relevant population. Also, nonwhite male group was more over represented than white male group. White female group was less under represented than nonwhite female group.

TABLE 30

Percentage Distribution of U.S. Population (18-24) and  
Army Accessions (18-24) by Sex, 1982

Sex	U.S. Population*	Army Accession
Male	50.40	88.11
Female	49.60	11.89
Total	100.00	100.00

\*Source: Statistical Abstracts of the U.S. :1984; and  
Data provided by DMDC.

TABLE 31

Percentage Distribution of U.S. Population (18-24) and  
Army Accessions (18-24) by Race and Sex, 1982

Sex	Population*	Army Accessions	% Difference
White			
Male	42.44	63.81	+50.35
Female	41.43	8.17	-80.28
Total	83.87	71.99	
Nonwhite			
Male	7.96	24.30	+205.30
Female	8.17	3.72	-54.47
Total	16.13	28.02	

\*Source: Statistical Abstracts of the U.S. :1984; and  
Data provided by DMDC.

## D. EDUCATION LEVEL

Table 32 compares the percentages of high school graduates of the 17-24 year old population and the 17-24 year old high school graduates in the Army cohort.

**TABLE 32**  
**Percentage Distribution of U.S. Population (17-24) and**  
**Army Accessions (17-24) by Race and Sex, 1982**

	Population*	Army Accessions	% Difference
-----			
Race			
White	59.93	61.27	+ 4.47
Black	8.21	22.72	+176.74
	-----	-----	
Total	68.14	84.49	
Sex			
Male	25.98	76.69	+195.19
Female	32.38	11.38	- 64.85
	-----	-----	
Total	58.36	88.07	

-----  
\*Source: Estimated from Census of Population :1980;  
Statistical Abstracts of the U.S. :1984, 1985;  
and Data provided by DMDC.

As the data indicate, the Army was able to attract 16.35 percent more high school graduates than was representative high school graduates than was representative of the whites and blacks. Also, in the Sex, the Army was able to attract 29.71 percent more high school graduates than was representative of the population.

The black high school graduate group in the Army was 176.34 percent larger than the U.S. population while the white high school graduate group was 4.47 percent large. Also, the male high school graduate was a 195.19 percent over representation. in the Army while the female high school graduate was a 64.85 percent under representation based on the relevant population. The percentage of male and female graduates is shown to indicate the large potential source of manpower that the female represent.

#### E. FAMILY INCOME

The last area of comparison is family income. Because the Army data were in 1984 dollars and the latest CPS data were in 1982 dollars, it was necessary to adjust one for comparison. The 1984 dollars were deflated to 1982 dollars using the consumer price index (CPI). In this case the deflated value was .9305, which was obtained from the 1985 Statistical Abstract of the United States. Also, the median income of the Army recruits was calculated by formula. (This was introduced in Chapter III)

Table 33 shows the family income data. Only data relevant to families were used to represent the relevant population of the U.S. In all regions, the white Army recruits came from the localities where the median family income was substantially lower than the white regional median family income, while the black recruits came from the localities where the median family income was substantially higher than the black regional median family income.

Among the black enlistees, the region with the lowest percentage difference was the West, 15.02 percent and the highest was the North Central with a 47.62 percent difference. Also, white enlistees in the South were the most under represented by 22.13 percent, based on the white regional median family income.

TABLE 37

## IOS and Birthplace of the ROK Army Chief of Staff

Name	Length of Service	Place of Birth
Kim, Kye-Won	Sep. '66 - Aug. '69	Kyeongsang*
Se, Chong-chol	Aug. '69 - June '72	Kyeongsang
No, Chae-hyon	June '72 - Feb. '75	Kyeongsang
Yi, Se-ho	Feb. '75 - Feb. '79	Kyeongsang
Chong, Sung-hwa	Feb. '79 - Feb. '79	Kyeongsang
Yi, Hui-song	Dec. '79 - Dec. '81	Kyeongsang
Hwang, Yung-si	Dec. '81 - Dec. '83	Kyeongsang
Jung, Ho-yong	Dec. '83-	Kyeongsang

Source: Armed Forces & Society, Vol. 11 No. 1, Fall 1984, p22

background. Korean don't like the participation of women in all jobs traditionally because of Confucianism.

The quality of ROK regular soldiers is getting higher because college and university graduates have increased. At present, the rate of regular soldiers which graduated and are studying over college is about 30 percent.

In the recent past, the ROK government has allowed the exemptions to a few people who are required in the national development. They are a few people with of PhD or Master degrees. Students who are studying at college or university can defer their enlistment dates until their graduate dates. But they have to work in the military after graduation.

Those who evade the military service in the ROK are very few. Because one who evades the military service can't get a job and is arrested some time or other.

lottery system can cause unfairness for the rich, government high officers and social high leaders. So the sons of these groups are classified differently and they largely have to work at forward areas and DMZ.

There are many officer training schools like the Military Academy, ROTC and OCS, etc. The candidates of RCTC are selected as volunteers during their junior 2 years and they are trained for 2 years. Their main training is during summer vacation and after commissioning. Most of them work as platoon leaders during 2 years and can then be discharged. A few members who acquire a scholarship from nation have to work for 5 years. The officers who graduated from military academy have to work for 10 years and OCS officers can be discharged after 2 years.

The ROK has 9 provinces and 3 large cities in geographic regions. However, the geographic region is not the issue of manpower. The geographic region distribution rates among the enlistments are almost the same and are equally represented. But the geographic distribution in General may be of some concern. Table 32 shows the General geographic distribution. As Table 32 indicates, the Chief of Staff came from Kyeong Sang Province since 1964. Perhaps this might be a political reason.

Also, race conflicts don't exist in the ROK because Koreans are all the same race. Koreans have a 5,000 year old history. So Koreans have lived in the same culture background and same language, etc. These are facts that increase the Korean soldiers unit cohesion similar to Israel.

The women in the military are volunteers and the rate is below 0.5 percent. Women mainly work as nurse officers, clerks, and secretary, etc. The low rate and poor role of women in the military is due to the Korean cultural



are that the regular soldier have to live under given schedules at barracks every day, while the defense soldier can go home after work. Of course, the regular soldier have vacations of 15 days every 6 months. Table 31 shows that the basic daily schedules between the regular soldier and the defense soldier.

**TABLE 36**  
**A Comparison of Basic Daily Schedules**

	Regular	Defense
06:00-06:30	Rising & Roll Call	
06:30-07:00	Cleaning	Free
07:00-08:00	Breakfast	
08:00-12:00	Training	Duty
12:00-01:00	Lunch	Lunch (Private)
01:00-17:00	Training	Duty (or Training)
17:00-18:00	Supper	
18:00-21:00	Free at Unit	Free
21:00-22:00	Roll Call	
22:00-06:00	Sleeping	

\* DMZ, Coast Guard act at night

\* Night Training and Night Watch are acted

The other differences between the two soldiers are the uniforms and salaries. Uniform color is not same and salary is not given to the defense soldier. These facts cause the regular to feel superior to the defense soldiers.

The regular soldier are classified into the two kinds of the branches of service, that is technical service or combat service, by their carriers. They also decide their units by lottery system after finishing training. But

All enlistments of the Navy (including Marine Corps) and Airforce are volunteers. Some of the Army enlistments also are volunteers. Army recruits can volunteer as Airborne troops, Military Police, Technical Units and NCO members. But the duty period is different for each service. The Army average is 30 months and the Navy and Airforce averages are 32 months respectively. The reason why many volunteers go the Navy and Airforce even though their duty period is longer than the Army is that the Navy and Airforce face less danger than that of the Army. Army enlistments largely work in the DMZ and the forward area against North Korean soldiers.

But over college graduates among the regular soldiers can reduce their duty period by 1-6 months, because they received military training at their school. These benefits often create conflicts between high school graduates and over college graduates.

The defense soldier mainly assists the regular soldier. Also they work as members of coast guard or night watch with Regular soldiers. The regular soldier conducts combat training and guard mission. Therefore the main jobs of the defense soldier consist of loading of supply, food service and carpentry, barbers, and ET, BT as well as Guard soldiers. The defense soldier is primarily assigned to low skill jobs and the regular soldier is primarily assigned to high skill jobs. The regular soldier who graduated from technical high school and college or university are assigned to the high skill jobs. Also, some of the technical high school graduates who acquired scholarships from the nation have to work in the high school job for 5 years. These say that the regular soldier and the defense soldier have good harmony in performance respectively.

However, the conflicts between the regular soldiers and the defense soldiers are very high. The main reasons

However, these days economic power is also recognized as a very important potential factor which improves military force. Table 35 shows the comparison of economic size and military spending of both Koreans.

The ROK consistently higher economic growth rates have helped it achieve a gross national product in 1982 about over four times that of the North, and the ROK's economic edge is likely to become greater in the future.

## 2. Socioeconomic Overview of the Military of the ROK

The national security of the Republic of Korea (ROK) is very important to the people of Korea. So the military system of the ROK is staffed by mandatory conscription and whomever becomes 20 years old has to perform the burden of defence. Korea has two kinds of soldiers in active duty. One is a regular soldier and the other is a defense soldier. The qualifications of a regular soldier require him to have a high school diploma and be "A" class physical condition, of which the categories are classified as A, Ba, Bb and C. However, college graduates can be regular soldiers even though they are Ba class. The rest become the defense soldier. The ratio between regular soldiers and defense soldiers is 3 to 1.

The regular soldier lives in a traditional military life style in barracks, while the defense soldier live at home after work in the military during a given time. The defense soldier performs his tour at the nearest military unit to his home. Most of defense soldiers work from 08:00 to 17:00 and then go home. Some of them work from 17:00 to 08:00. Their tour periods are 365 days, which they work actually 8 hours a day in their military units, not include holidays.

TABLE 35

## A Indicator of Economic Size and Military Spending

Indicator	North	ROK
Population (Millions)	18.7 (19)	40.7 (42)
Armed Forces Per 1,000 Population	38.0	14.7
GNP (millions of \$)	16,200	69,539
Per Capita Income	817 (>1000)	1,611 (2000)
Military Spending (Millions of \$)	3,500	4,783
Military Spending As % of GNP	21.6 (24)	6.9 (6)

Source: U.S. Arms Control and Disarmament Agency,  
World Military Expenditures and Arms Transfers  
1972-1982

( ) represents the estimate of 1985

Since the Korean Armistice of 1953, both North Korea and ROK has steadily rebuilt their armed forces with the assistance of their super power patrons. Table 34 shows the comparison between ROK and North Korea Force in 1983.

The North Korean have vowed to reunite the Korean peninsula under one government. The build up their armed forces consumes 20 percent of North Korea's annual GNP and continues at a rate beyond that required for legitimate defensive purposes. The North Koreans deploy about half their combat forces near the border of the ROK. They stress mobility, firepower, and shock action and maintain the capability to launch an offensive on short notice. The ROK continues its efforts to achieve an independent capability to resist aggression but still U.S. support to deter or counter a North Korean attack. The United States forward deploys an Army Division plus Air and Naval force in Korea.

conflict in this area could lead to World War III. Therefore the stabilization of the Korean peninsula is very important to keep peace in the world as well as in the Western Pacific and Northeast Asian areas.

**TABLE 34**  
**A Comparison between ROK and North Korea in 1983**

Content	North Korea	ROK
Personnel		
Army	700,000	540,000
Navy	33,500	49,000
Airforce	51,000	33,000
Divisions	40	25
Special Forces	25	7
Brigades		
Tanks	2,675	1,000
Armored Personnel		
Carriers	1,140	850
Artillery Tubes	6,000	2,100
Mortars	10,500	7,410
Multiple Rocket	2,850	0
Launchers		
Air Defense Guns	8,000	300
Combat Aircraft	622	380
Combat Ships	512	102
Submarines	21	0

Source: The Posture of the Army and Department of the  
Army Budget Estimates for FY 1985 and the  
Military Balance (1983-1984)

To keep the military balance in the region, the United States deploys 1 infantry Division, 1 or 2 Carrier battle groups, 10 Tactical fighter Squadrons, 1 marine amphibious force and 1 Bomber wing and provides a nuclear "Umbrella". The U.S. also maintains important bilateral security arrangements with ROK, Japan and the Republic of China.

to serve simply as a line of demarcation for the acceptance of Japanese surrender by Soviet and American troops. But the line -a line of convenience- soon hardened into a solid boundary. This line was become as the "international frontier" between the communist- dominated world and the free world.

On June 25 1950, the North Korean Troops swept across the 38 th parallel, slicing in four columns into the Republic of Korea with the aim of destroying the ROK Government. The Korean war immediately became a matter of world interest because of the importance of Korea's geographical location. the simple fact of geographical location once more became fundamental in Korea's history.

These days, the Korean peninsula is recognized as one of dangerous area in the world. The danger from the region is underscored by the Soviet Unions' shooting down of a ROK civilian airliner (KAL) and by the North Korean's aggressive attitudes: invasion tunnels dug under the Demilitarized zone (DMZ) \* ambushes ROK and U.S. soldiers, subversive efforts, a constant stream of bellicose propaganda from radio of North Korea and provocative incidents such as the Rangun Bombing as a recent evident. In other words, the Korean peninsula can be recognized as a very important buffer zone between Communists and Free powers.

Specifically, the Korean peninsula is the one area in the Northeast/Western Pacific basin where the interests of the four major regional powers -Japan, People's republic of China, USSR, U.S.- interest directly and significantly. Therefore, if a conflict breaks out in the Korean peninsula, the intervention of related super powers -U.S., USSR, China, Japan- will be indispensable. So we can easily guess that a

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\*North Korea was tunnel operations under the DMZ as part of their overall concept of war. Three large tunnels have been discovered under the DMZ and as many as 17 others are suspected.

## APPENDIX A

### **A. MILITARY ENVIRONMENT AND SOCIOECONOMIC OVERVIEW OF THE RCK**

#### **1. MILITARY ENVIRONMENT**

KOREA IS LOCATED IN THE HEART OF THE FAR EAST. THIS FUNDAMENTAL FACT OF geographic location has always been a major factor in Korea's history. Surrounded by the major powers of Asia and the Pacific -each vitally interested in controlling the strategically located country- Korea has become many times a battle ground in a struggle for power. To the Southeast, only 120 miles distant, lies Honshu, the principle island of Japan. To the West, at about same distance, lies the Shantung peninsula of China. Manchuria, the Northernmost province of China, shares most of Korea's Northern boundary. Finally, in the Northeast, for 11 miles along the Trumen River, lies the Soviet Union. As a peninsula it has served as a bridge between powers on the continent of Asia and powers in the Pacific.

In other words, a peninsula location has both the advantage of easy access to adjacent culture when our nation was strong and the disadvantage of becoming the target of aggressive neighbors when our nation was weak. Historically, Korea was attacked 942 times. Even though Korea delivered most of cultures to Japan, most of attacks were acted by Japan. Japan possessed Korea from 1910 to 1945.

However, as soon as Korea was independent from Japan on August 15 1945, the Korean peninsula was divided into two Koreas at the 38 th parallel. It was initially designated

The last comparison was made between family incomes. Although the data available have limitations, the comparisons are considered valid indicators. In all regions, the white median family incomes of the Army recruits were lower than family incomes of the civilian society, while the black median family incomes of the Army recruits were higher than family incomes of the civilian society.

In conclusion, the "quality" of the Army's accessions appears to have increased since 1979. Also, the utilization of nonwhites and women has somewhat decreased since 1979. The Army was not representative of the recruit civilian society in 1982. However, data seem to show improved representation since 1979. The overall trends reflect that the "quality" of Army recruits and effectiveness of the Army have gotten better since 1979. In addition, this study indicates that the Army's Active duty force has improved overall since 1979.



civilian population. For comparison purposes it was often necessary to take various age groups of the Army's accessions because of limitations in available Census Bureau data. In these cases, the Army data were adjusted so that various percentages summed to 100.

Regionally the Northeast and West were under represented by 14 percent and 17.56 percent, while the North Central and South were over represented by 17.82 percent and 5.23 percent in terms of Army recruits it provided and its percentage of total relevant population respectively.

In racial compositions, the white group was a 16.21 percent of under representation, while the black and other groups were a 87.36 percent and 61.11 percent over representation based on the relevant population. By regions, the white participation rate of each region was less than the white population rate of each region, while the black participation rate of each region was more than the black population rate of each region. This is very interesting in the Army accessions. Particularly, Blacks of the Northeast and South were over represented by 99.83 percent and 92.77 percent respectively.

In Sex, the males and females of nonwhite groups was more over represented than the those of white groups. Particularly, the male of nonwhite group was a 205.30 percent over representation based on the relevant population.

The comparison of percentage of 17-24 year olds in the U.S. population to 17-24 year olds entering the Army that are high school graduates revealed that the black group was a 176.74 over representation, on the other hand, the white group was just a 4.47 percent over representation. Also, the male group was a 195.19 percent over representation, while the female group was a 64.85 under representation.

27.2 in 1984. This was a 18.6 percent annual growth rate from 1970 to 1979 and a 6.3 percent annual reduction rate from 1980 to 1984 in nonwhite enlistees.

There was an increase in the number of females entering the Army's enlisted force from 1971 to 1981, but the numbers have decreased somewhat since 1981. The annual growth rate from 1971 to 1981 was 32.6 percent. But the percentage of female enlistees decreased from 14.7 in 1981 to 12.1 in 1984. The percentage of white women increased from 18.9 in 1971 to 45.2 in 1979, and then decreased from 45.2 in 1979 to 31.9 in 1982. Both nonwhite and white females increased in terms of their percentage of all recruits.

Regarding the traditional individuals of quality, educational level and mental aptitude, both increased since 1979. The percentage of high school graduates increased from 60.4 in 1979 to 89.4 in 1984. Those in the upper half of the mental group were only 29.1 percent of all recruits in 1979. By 1984 this group was 62 percent of all entrants. This was a 22.6 percent increase during that period. These data are not adjusted for any possible misnorming of the various tests used during the period.

The average family income of all Army enlistees has remained constant over the period of 1980 through 1984. Among the Districts the south had the recruits with the lowest family income, while the West had the recruits with the highest one. By Race, the income of whites was greater than that of nonwhites. By Sex, males were found to come from families with higher incomes than those of females females by a small difference.

Other characteristics studied included age at enlistment. Particularly, between 1981 and 1984 the average age of the recruits had decreased 20.3 years to 20 years, or about 3.6 months. lastly, this study looked at representativeness of the 1982 cohort in terms of the relevant

## VI. SUMMARY AND CONCLUSIONS

This thesis was concerned with the socioeconomic trends within the Army between 1970 and 1984 and its representativeness in 1982. The first part of the study explored the historical context of representativeness and the progress of the AVF. The concept of the individual's right and obligation to serve in the defense of his (her) country has been a major principle of U.S. military service and is the foundation of a policy of representativeness in the military.

Next, the study examined individual and socioeconomic characteristics of all Army accessions between 1970 and 1984. These characteristics of the enlistees for each year were compared to those of the other years and to a few of draft years. From these comparisons trends within the entering cohorts were detected.

Regionally, the percentage of Army enlistees from the North Central increased from 22.59 in 1978 to 29.10 in 1984, while that from the Northeast decreased from 19.94 in 1976 to 16.40 in 1984. The percentage of Army enlistees from the South increased from 34.96 in 1982 to 36.41 in 1984, while that from the West was always less than draft periods. It is interesting that the percentage of white group from the South increased from 43.48 in 1978 to 64.32 in 1983, while that of nonwhite group from the South decreased from 56.52 in 1978 to 35.68 in 1983. Also, the percentage of white group from the Northeast increased from 70.17 in 1978 to 74.05 in 1984 continuously.

Racial composition was inspected, and it was found that an increasing percentage of nonwhite people had entered the Army from 13.9 in 1970 to 39.7 in 1979, and then the percentage of nonwhite people decreased from 39.7 in 1980 to

TABLE 33

Median Family Income of U.S. and Army Accessions' families in 1982, in 1984 dollars, by Region, by Race

Region	Race	Population*	Army	% Difference
Northeast	White	\$ 25,815	\$ 20,293	-21.39
	Black	\$ 14,735	\$ 17,412	+18.17
North Central	White	\$ 24,903	\$ 21,612	-13.22
	Black	\$ 12,374	\$ 18,267	+47.62
South	White	\$ 23,089	\$ 18,063	-21.77
	Black	\$ 13,044	\$ 15,930	+22.13
West	White	\$ 25,249	\$ 21,916	-13.20
	Black	\$ 16,508	\$ 18,988	+15.02

\*Source: Statistical Abstracts in the U.S. :1985; and Data provided by DMDC.

## APPENDIX B

### **A. CHRONOLOGY OF IMPORTANT EVENTS IN THE HISTORY OF U.S. MILITARY**

#### **MANPOWER PROCUREMENT**

<b>Date</b> -----	<b>Event</b> -----
May 8, 1792	Enactment of the Militia Act of 1792; established legal precedent for universal male (white able-bodied) obligation for state militia service
Sep. 1794	Whiskey Rebellion in western Pennsylvania; first call of state militia drafts for federal service.
Dec. 1814	First National Conscription Bill; despite strong support of President Madison, Congress failed to pass bill.
Apr. 16, 1862	Conscription Act, Confederate States of America; approximately 300,000 (1/3 of confederate total) drafted into military.
July 17, 1862	Militia Act: supplemented enlistments with state militia drafts, reaffirmed universal military obligation of able-bodied white males, aged 18-45.
Mar. 3 1863	Enrollment Act; implemented registration of all white males between 20 and 45. Federal Government assumed conscription authority based on Constitutional powers of legislature, 170,000 subsequently drafted for civil war (includes 118,000 substitutes).

May 1916	National Defence Act; reaffirmed use of state militia for federal service, empowered President to conscript up to 1 million.
May 18, 1917	Selective Service Act; 2.8 million men inducted into Army during World War I.
June 4, 1920	National Defence Act; ended conscription, reorganized peacetime regular army.
Sep. 16, 1940	Selective Service and Training; 45 million men registered, 10 million drafted, extended conscription authority to March 31, 1947.
June 10, 1948	Selective Service Act, extended before outbreak of Korean War, various extended to July 1, 1973.
June 1951	Universal Military Training and Service Act; mandated a universal male obligation for military service,
July 1, 1973	Draft Extension Act of 1971 expires, (last actual conscription in Dec. 1972); authorized peacetime registration and classification under the Selective Service System.
Apr. 1 1975	President Ford ended requirement to register with the Selective Service system.
July 21, 1980	Selective Service System resumed mass registration. [Ref. 75]

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